

Application No. 10/082,603

REMARKS

Claims 1-20 are pending. Claims 1-15 and 18-20 are allowed. Claim 16 is amended for clarity. Claim 16 is amended to remove language that the Examiner asserted to be process limitations. The amendment of claim 16 is supported by the original claim and the specification, for example, at page 10, lines 12-14. Applicants do not intend to narrow the claims by the amendment since Applicants have just rewritten the claim to more clearly describe the structural features of the waveguide grating. No new matter is introduced by the amendments.

Claims 16 and 17 stand rejected. Applicants respectfully request reconsideration of the rejections based on the following analysis.

Rejection Over Yamada in view of Chen

The Examiner rejected claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No 5,940,548 to Yamada et al. (Yamada) in view of U.S. Patent No. 6,356,681 to Chen et al. (Chen). The Examiner did not extend the allowance of the method claims to the article claims 16 and 17 since the Examiner asserted that the method limitations did not limit the claim. While Applicants respectfully disagree with the Examiner's assertions, Applicants have nevertheless amended claim 16 to redraft the particular features more clearly as structural features. Applicants maintain that the Examiner has failed to establish *prima facie* obviousness. Applicants respectfully request reconsideration of the rejection in view of the following comments.

As amended, it is clear that the errors in the optical path length of the claimed waveguides have a phase error corresponding to errors in optical path length of less than 10 nanometers. Thus, the features of the allowed method claims are clearly transformed into structural features of the article claims. It is clear that the combined teachings of the cited references do not place the claims arrayed waveguide gratings in the hands of the public. The Yamada patent does not teach the

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claimed optimization of the grating performance, and the approaches of Chen relating to optical fibers do not teach the claimed improved optical waveguide grating. In particular, the combined teachings of the cited references do not teach the particular low phase error arrayed waveguide gratings and do not provide a reasonable expectation of success. As such, the combined teachings of the references do not render Applicants' claimed invention *prima facie* obvious.

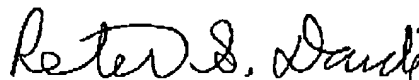
Because claim 16 is allowable, its dependent claim 17 should also be allowed. Also, Applicants note that the feature of claim 17 is expressed as a structural feature. Since the combined teachings of the cited references do not render Applicants' claimed invention *prima facie* obvious, Applicants respectfully request withdrawal of the rejection of claims 16 under 35 U.S.C. § 103(a) as being unpatentable over Yamada in view of Chen.

#### Conclusions

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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